

NOTE 1. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of air carrier operators having an approved weight control system).

NOTE 2. The following placards must be displayed:

A. For Model 101:

- (a) On instrument panel in full view of the pilot:
 - (1) "This airplane must be operated as a normal category airplane in compliance with FAA approved operating limitations in the form of instruction markings and placards. No acrobatic maneuvers including spins approved."
- (b) Below airspeed indicator:
 - (1) "Maneuvering speed 114 mph."
- (c) In baggage compartment:
 - (1) "Maximum baggage allowable 159 lb."
- (d) On left door panel or readily visible:

"Maximum Weight and C.G. Range"

Maximum weight 3550 lb.
Most Fwd., C.G. +106.8" from datum
Most Aft, C.G. +117.0" from datum
Datum is 86.5" fwd of wing leading edge.

Airspeed Limits

| | | | |
|-----|-------------------------------|----------|------|
| Vne | Maximum glide or dive | 150 mph. | TIAS |
| Vc | Maximum design cruising speed | 118 mph. | |
| Vp | Maneuvering Speed | 114 mph. | |
| Vf | Maximum flap down speed | 89 mph. | |

Maneuvering Load Factors

| | |
|-------------------------------|------------|
| Do not exceed 3.8 load factor | flaps up |
| Do not exceed 1.9 load factor | flaps down |

Instrument Marking

| | | |
|------------|----|------------------------------|
| Red Radial | -- | Maximum or minimum allowable |
| Yellow Arc | -- | Cautionary range |
| Green Arc | -- | Normal operating range |
| White Arc | -- | Flap operating range |

Engine and Propeller Limits

Engine Lycoming R-680-E3 Series
Maximum power S.L. 300 BHP at 2300 RPM full throttle 2 min.
Maximum continuous power 285 BHP S.L. at 2200 RPM 28.0" Hg.
Maximum cylinder temperature (head) 525°F or 274°C.
Oil capacity 5 US gallons
Maximum oil temperature 200°F. or 93°C.
Propeller Ham. Std. 2B20 with 6135A-6 to 6135A-10 blades
Diameter Limits: 8' 6" max., 8' 2" min.
Pitch settings at 42" station:
 With 6135A-6, -7 and -8 blade 19° High, 6 ½° Low
 With 6135A-9 and -10 blade 19° High, 8° Low

Fuel System

Use 87 Octane minimum grade aviation fuel.

Fuel system consists of 2 fuel tanks, one in each wing, with a capacity of 52.5 gallons each. One header tank in fuselage, 7 ½ U.S. gallon, fed directly by the wing tanks. The total usable fuel is 112.5 U.S. gallon. If airplane is equipped with one wing fuel tank, the total usable fuel will be 52.5 gallons plus 7 ½ gallons in header tank or 60 U.S. gallon.

NOTE - Fuselage tank (7 ½ gallons) is not gauged. When fuel level is below 7½ gallons in fuselage tank a red light on the instrument panel will come on. Switch to opposite wing tank provided there is fuel remaining in tank.

WARNING - Should red light fail to go out or no fuel remains in wing tanks, land as soon as practical as there is approximately 16 minutes fuel remaining in the aircraft at M.C. power.

Baggage Compartment

Do not exceed 159 lb. at station 192.

B. For Model 102:

- (a) On instrument panel in full view of the pilot:
"This airplane must be operated as a normal category airplane in compliance with FAA approved operating limitations in the form of instruction markings and placards. No acrobatic maneuvers including spins approved."
- (b) Below airspeed indicator:
"Maneuvering speed 114 mph."
- (c) In baggage compartment:
 - (1) "Maximum baggage allowable 159 lb."
- (d) On left door panel or readily visible:

"Maximum Weight and C.G. Range

| | |
|---|--------------------|
| Maximum weight | 3350 lb. |
| Most Fwd., C.G. | +106.8" from datum |
| Most Aft, C.G. | +117.0" from datum |
| Datum is 86.5" fwd. of wing leading edge. | |

Airspeed Limits

| | | |
|----------------------------------|----------|------|
| Vne Maximum glide or dive | 150 mph | TIAS |
| Vc Maximum design cruising speed | 118 mph. | |
| Vp Maneuvering speed | 114 mph. | |
| Vf Maximum flap down speed | 89 mph. | |

Maneuvering Load Factors

| | |
|-------------------------------|------------|
| Do not exceed 3.8 load factor | flaps up |
| Do not exceed 1.9 load factor | flaps down |

Instrument Marking

| | | |
|------------|----|------------------------------|
| Red Radial | -- | Maximum or minimum allowable |
| Yellow Arc | -- | Cautionary range |
| Green Arc | -- | Normal operating range |
| White Arc | -- | Flap operating range |

Engine and Propeller Limits:

Engine Jacobs R755 A2

Max. power, S.L. = 300 bhp at 2200 rpm, full throttle

Max. continuous power, S.L. = 300 bhp at 2200 rpm, full throttle

Max. Cyl. Hd Temp. = 500 deg F (260 deg C)

Max. Oil Temp. = 200 deg F (93 deg C)

Oil capacity - 6.5 US gallon

Prop = Ham. Std. 2b20 Hub, 6135A Blade, 7' 7-1/8" to 7' 9" diameter

Stops set for 10.3 to 12 deg low, 25.3 to 27 deg high pitch.

Measured at 42 inch station.

Fuel System

Use 80 octane minimum grade aviation fuel

Fuselage stump tank (7 1/2) is not gauged. When Fuel Low Level Warning Light on instrument panel lights (red), fuel is below 7 1/2 gallons. Should red light fail to go out, or no fuel remains in wing tank(s), land as soon as practical as there is approximately 16 minutes fuel remaining at METO power.

Baggage Compartment

Do not exceed 159 lb. at station 188.5"

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